

Inventor(s): BERGEMANN  
 Application No.: 09/809,028  
 Attorney Docket No.: 021123-0277112

each R is independently selected from alkyl, alkyl functionalized by Y, polymers, cyclic organic groups, aryl, or aryl of the formula  $ArY_n$ ,

Y is selected from  $-OH$ ,  $-SH$ ,  $-SO_3H$ ,  $-SO_3M$ ,  $-B(OH)_2$ ,  $-O(CH_2-CH_2-O)_n-H$ ,  $-COOH$ ,  $-COOM$ ,  $-NH_2$ ,  $-NR_2$ ,  $-N((CH_2-CH_2-O)_nH)_2$ ,  $-CON((CH_2-CH_2-O)_nH)_2$ , perfluoroalkyl,  $-R^2$ ,  $-NH_3^+$ ,  $-NR_3^+$ ,  $-SO_2-NR_2$ ,  $-NO_2$ ,  $-Cl$ ,  $-CO-NR_2$ ,  $-SS-$ , or  $-SCN$ ,

n is 1-5,

$R^2$  is selected from an aliphatic group, a cyclic organic group, an organic compound with an aliphatic and a cyclic part that is substituted or unsubstituted, branched or unbranched, chromophoric groups or dyes,

x is 1-10,

M is an alkali metal, and

wherein the organic groups do not contain silicon.

3. (Amended) A carbon black with organic groups that is obtained by reacting carbon black with organic compounds with the general formula  $R-S_x-R$  wherein:

each R is independently selected from alkyl, alkyl functionalized by Y, polymers, cyclic organic groups, aryl, or aryl of the formula  $ArY_n$ ,

Y is selected from  $-OH$ ,  $-SH$ ,  $-SO_3H$ ,  $-SO_3M$ ,  $-B(OH)_2$ ,  $-O(CH_2-CH_2-O)_n-H$ ,  $-COOH$ ,  $-COOM$ ,  $-NH_2$ ,  $-NR_2$ ,  $-N((CH_2-CH_2-O)_nH)_2$ ,  $-CON((CH_2-CH_2-O)_nH)_2$ , perfluoroalkyl,  $-R^2$ ,  $-NH_3^+$ ,  $-NR_3^+$ ,  $-SO_2-NR_2$ ,  $-NO_2$ ,  $-Cl$ ,  $-CO-NR_2$ ,  $-SS-$ , or  $-SCN$ ,

n is 1-5,

$R^2$  is selected from an aliphatic group, a cyclic organic group, an organic compound with an aliphatic and a cyclic part that is substituted or unsubstituted, branched or unbranched, chromophoric groups or dyes,

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y is 2-10

M is an alkali metal, and

the organic groups do not contain silicon.

4. (Amended) A method of producing the carbon black of claim 3, comprising reacting a carbon black and a compound of formula R-S<sub>y</sub>-R.

Please cancel claims 5 and 6, without prejudice.

## II. REMARKS

### *Preliminary Remarks*

Upon entry of the foregoing amendment, claims 1-4 and 7 will be pending, of which claims 1 and 3 are independent. Claims 5 and 6 have been cancelled. Support for the claim amendments may be found in the specification as originally filed (e.g., page 4, line 11).

Consequently, no new matter is believed to have been introduced herein.

As a convenience to the examiner, attached hereto, as an appendix, is a marked-up version of the changes made to the claims by the current amendment. The attached appendix is captioned "Version with markings to show changes made".

### *Patentability Remarks*

#### 35 U.S.C. §112, Second Paragraph

Claim 2 stands rejected under 35 U.S.C. §112, second paragraph, as allegedly being indefinite. Specifically, the examiner asserted that while claim 1 states that the carbon black is bonded to an organic group through a sulfur component, the limitation of claim 2 contradicts this claim, as the sulfur groups are already fully bonded.